

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of)	
)	
Paul E. Jacobs <i>et al.</i>)	For: A PORTABLE DEVICE WITH
)	VERATILE KEYBOARD
)	
Serial No. 10/718,125)	Examiner: Duc Q. Dinh
)	
Filed: November 19, 2003)	Group No. 2629

DECLARATION UNDER 37 CFR §1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Theodore R. Santos, based on information and belief, do hereby declare that:

1. I am an inventor of the above-captioned patent application, U.S. Application Serial No. 10/718,125, filed November 19, 2003.
2. At the time of the invention, I was employed by Qualcomm, Inc.
3. I conceived at least a portion of the invention claimed in claim 1 of the above identified patent application prior to September 29, 2003 in the United States and diligently worked the invention until a constructive reduction to practice in the United States as demonstrated by the Attached Exhibits and the above-noted '125 patent application.
4. Prior to September 29, 2003, I contributed to the generation of a document entitled "AC-DC Status Review Slides for Meeting with Paul," for use in preparing the '125 application. Attached as Exhibit A, is a copy of the document.

5. Prior to September 29, 2003, I contributed to the generation of a document entitled "Design Concepts and Mechanical Deployment of an Integrated 'QWERTY Plus' Multi Application Cellular Telephone," for use in preparing the '125 application. Attached as Exhibit B, is a copy of the document.

6. During the period between just prior to September 29, 2003 until November 19, 2003, I worked with patent attorneys Mr. Ben Miller and Mr. Christopher Edwards and patent agent Mr. Marc Hooks, all employed by Qualcomm, Inc. I provided information regarding the invention assisting Mr. Hooks to draft the '125 application. During this time period, I received several versions of the specification, the drawings, and the claims from Mr. Hooks for review. During the afore-mentioned time period, I reviewed several versions of the application in order to provide comments and correction to Mr. Hooks. The '125 application was filed on November 19, 2003. During the afore-mentioned time period, I received an email from Qualcomm Patent Agent, Mr. Marc Hooks, attached as Exhibit C hereto, providing information about a draft patent application entitled "PDA_10_15_2003_6_USA_1.doc," which he had sent to me for my review.

7. Attached as Exhibit D is a table comparing the elements of claim 1 with the corresponding conception identified in Exhibits A and B.

8. Exhibits A-B, which relate to the aforementioned conception of the claimed invention followed by diligence until a constructive reduction to practice are hereby incorporated by reference in their entirety herein, correspond to the invention broadly disclosed and claimed in the above-identified patent application. Actual dates of Exhibits A-B have been removed, but are prior to September 29, 2003. Further, company proprietary information has been removed from all exhibits.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that

these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

DATED:

12/17/06T. J. S.

EXHIBIT A

Katbab, Abdollah

From: Steve Mergenthaler [smergen@qualcomm.com]
Sent: Wednesday, December 13, 2006 7:50 AM
To: Katbab, Abdollah
Subject: Fwd: AC-DC satus review slides for meeting with Paul

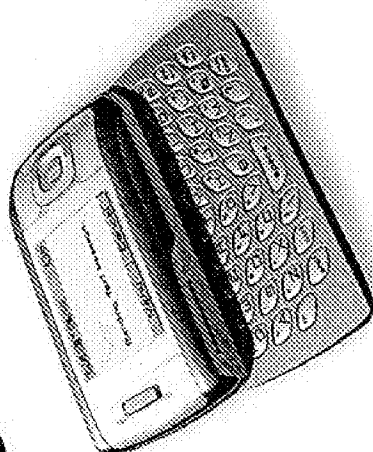
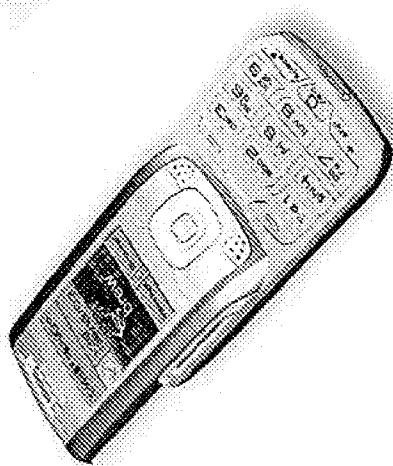
Attachments: acdc status PJ 09030031.ppt



acdc status PJ
09030031.ppt (9...

>X-Sender: tsantos@smtpghost-co.qualcomm.com
>X-Mailer: QUALCOMM Windows Eudora Version 5.2.0.9
>Date: Tue, 12/13/2006 14:53:30 -0600
>To: esimmons@qualcomm.com, smergen@qualcomm.com,
> "Gad Shaanan" <gad@gadshaanandesign.com>
>From: Ted Santos <tsantos@qualcomm.com>
>Subject: AC-DC satus review slides for meeting with Paul
>
>Ed/Steve/gad-
>
>Slides for tomorrow's meeting. We can discuss at lunch (11:30am)
>tomorrow. Steve-is there somewhere in building L where we can print out
>an updated version for Paul if we make updates? Maybe e-mail to his
>secretary?
>
>Ted
>
>Ted Santos
>Qualcomm Boulder
>Technology Support Group
>303-247-5482

AC~DC Status Review

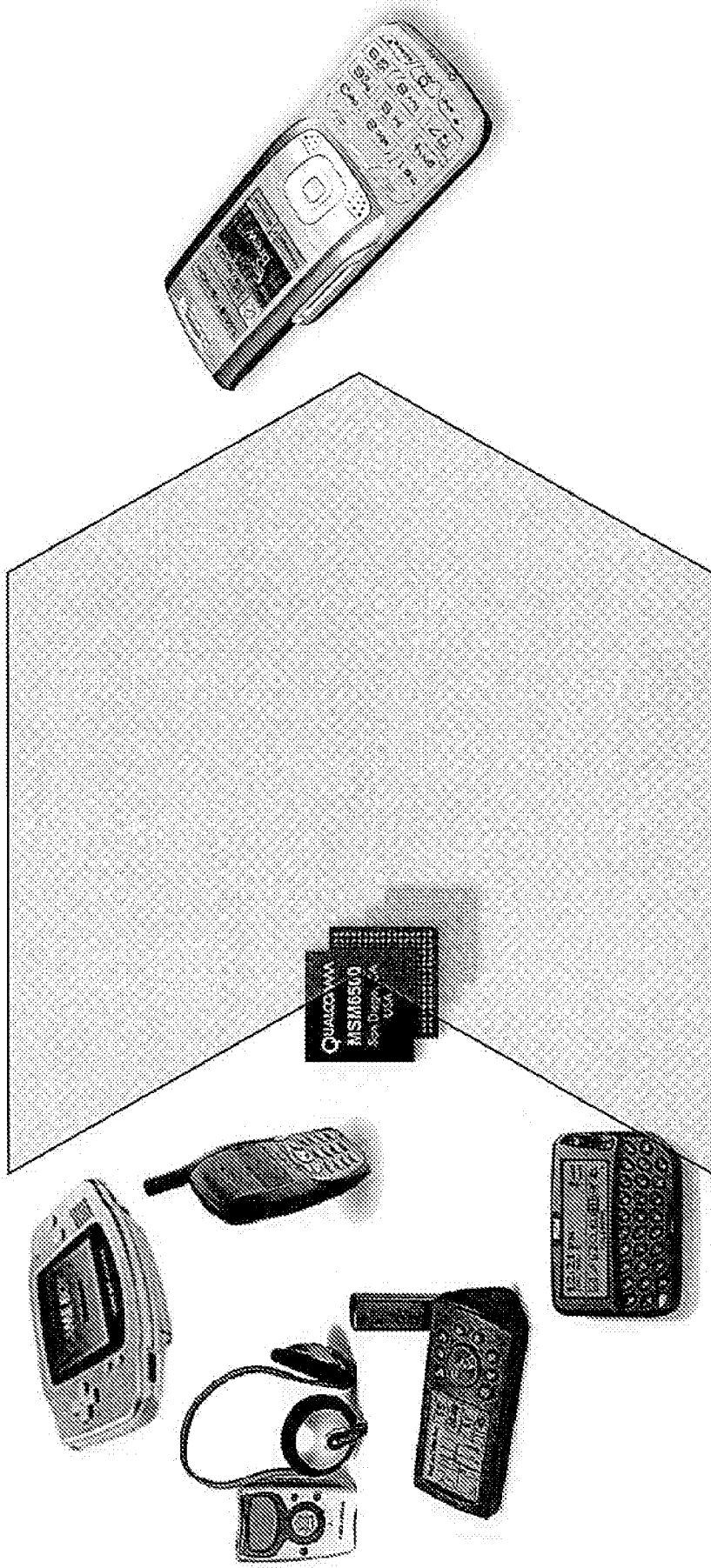


Presentation Purpose

- Review AC~DC required features
- Review desired features not in the current baseline
- Review high risk areas and program concerns

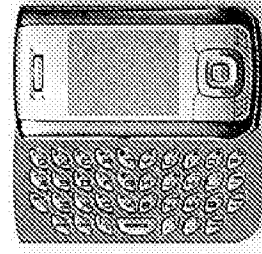
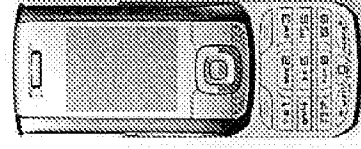
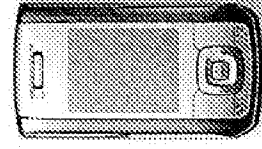
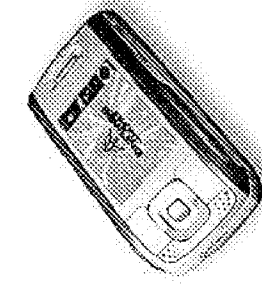
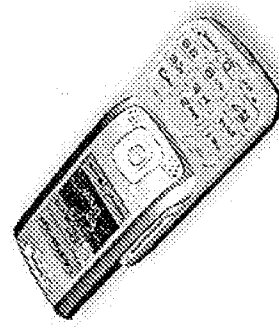
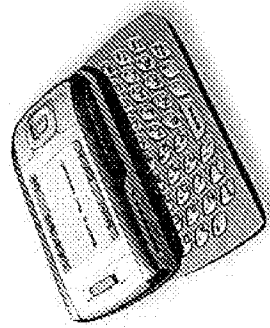
Project Goals

- Leverage the power of MSM6500 into a commercial handset that provides a platform for BREW gaming and enterprise applications, and QCT 3D graphics, camera and sound capabilities.



AC~DC Features

- The following several slides list the features included in AC~DC. This feature set must be benchmarked against the high level project definition.
 - *A platform for BREW gaming and enterprise applications, QCT 3D graphics, camera and sound capabilities*
- Form factor
 - “double slider” with QWERTY support as defined by Paul Jacobs and Gad Shaanan
 - Physical UI updates in progress to better support gaming



AC~DC Features

- Electrical Architecture
 - Dual-band digital only with GPSOne support for the North American CDMA marketplace
 - EV-DO with no RX diversity
 - MSM6500 ZIF architecture
 - Internal antenna (buried helix with deployable whip)
- Hardware Features
 - USB(OTG?)
 - Mini-SD removable media
 - Stereo Headset
 - DC Jack
 - Earpiece in upper slide
 - Microphone
 - Polyphonic Ringer
 - Digital Camera (resolution currently 0.35 megapixel)
 - Color LCD, 2" diagonal. Targeting QCIF+(176 x 220) resolution, 262K colors.
 - Vibrating alert
 - Battery Pack, 750mAh minimum, removable, with separate battery door

- Software Features
 - User Interface to be defined by Paul Jacobs
 - Use of Qualcomm's Launchpad Suite to support software requirements.

AC~DC Feature Wish List

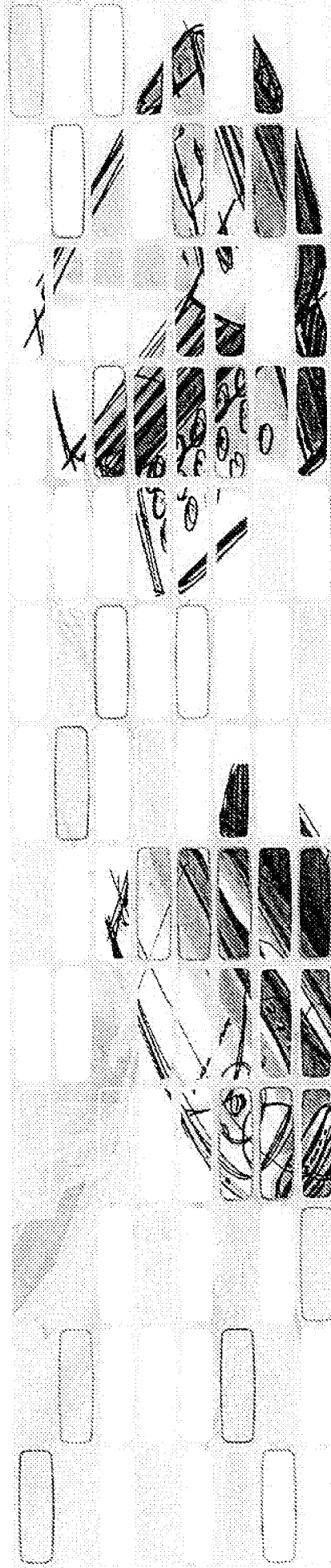
- The following features have been requested as potential for the AC~DC program. No size sensitivity analysis has been completed to identify the additional space required to accommodate. Based upon the current form factor and features, it is doubtful that they can fit in without increasing the product size.
 - Dual-mode CDMA-GSM handset requiring R-UIM
 - Bluetooth (is this a requirement to compete in the peer to peer gaming world?)

Summary of risks/ concerns

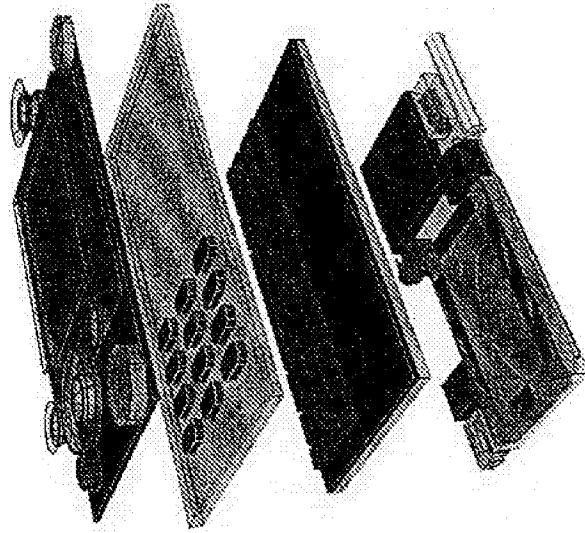
- Accommodating required feature-set in current form factor size
 - A detailed mechanical layout and analysis to occur jointly between Gad Shaanan Design and Qualcomm. Final size estimate with 95% confidence level to be available 9/29/03.
- Current antenna system may pose carrier compliance issues for our licensees in the North American market.
- Use of AC~DC against head in “slide closed” mode may pose SAR compliance issues
- IP issues

EXHIBIT B

Design Concepts and Mechanical Deployment of an Integrated "QWERTY Plus" Multi Application Cellular Telephone
 Phase III_Preliminary Styling and Detailed Design Definition



Component Layout: Triple Module Unit
















Display Module
90x46x8.5mm thick

Keypad Module
3mm thick

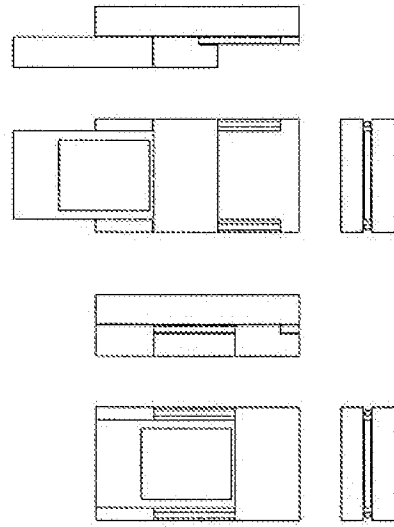
QWERTY Module
12.5mm thick
75x29 (minimum)

Note: All wall thicknesses are shown as 1.5mm with 0.5mm gap for tolerances between components and plastic (except the dialing keypad - 3mm total).

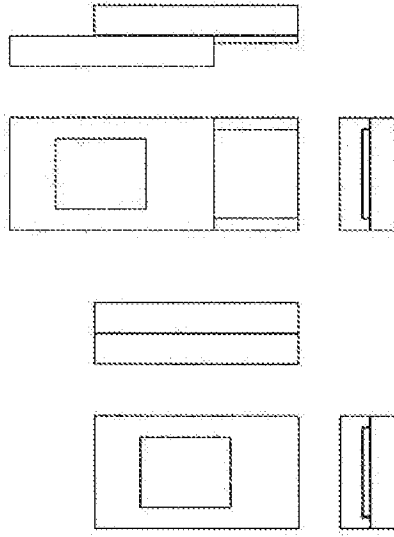
 LDC Unit 50.6x37.7x4.5 Vmax426 30x10	 Radio Single-Sided Supporting QWERTY 82x44x3.6 3638 mm2	 Battery 30x46x5.35	 AMC Connector 26.2x28x3.2	 Whip Antenna Size TBD	 Mini USB 9x11x4.14	 Camera 10x10x7	 Ringer/Speaker D13, T2.92	 Mic Ø7.4 T3.6	 Speaker D16, T2.53	 DC Jack 5x11x5	 Headset Jack 8.39x5.3x12.6	 Vibrator 13.0x11.8x4.3
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Architecture

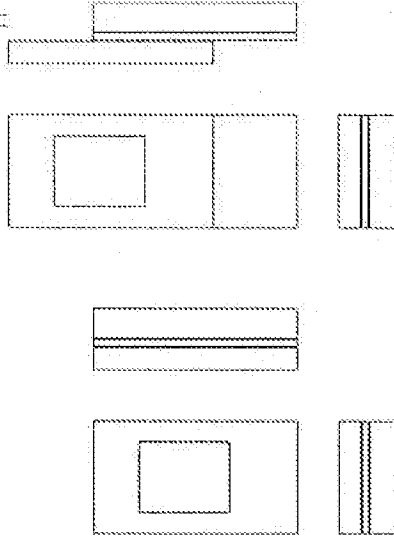
Layout 1



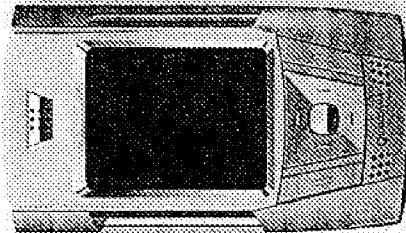
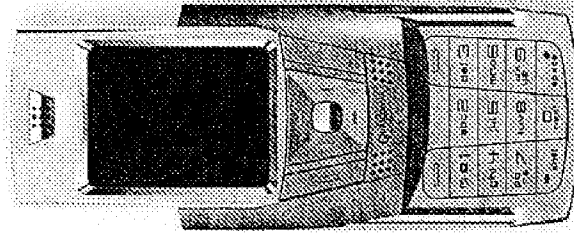
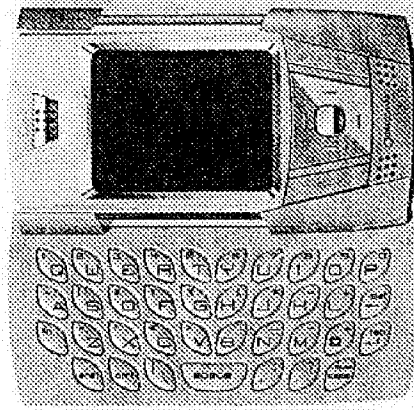
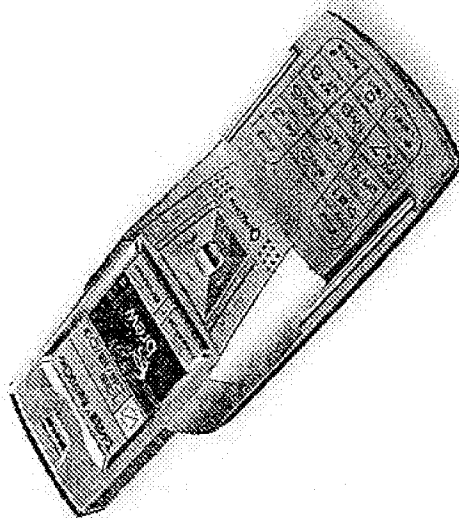
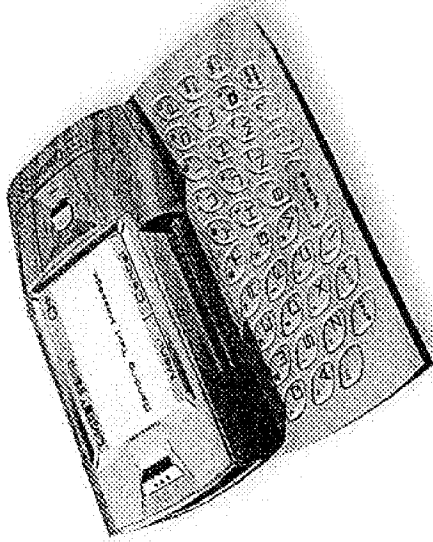
Layout 2



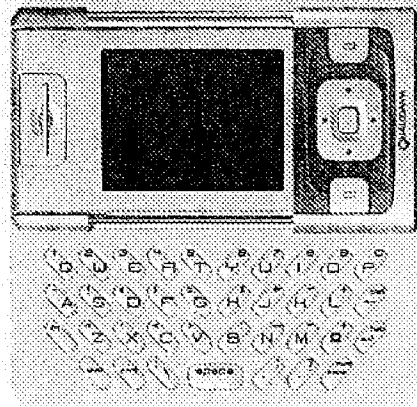
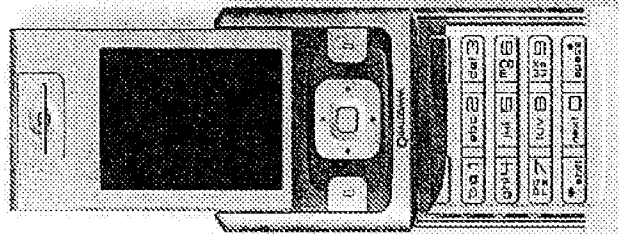
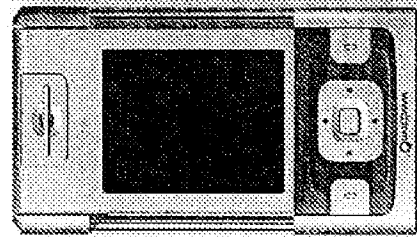
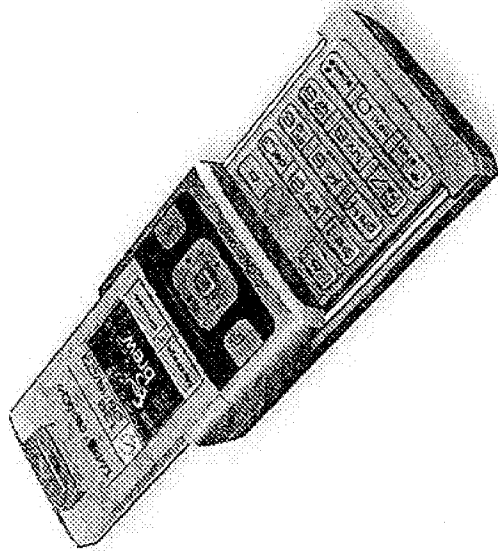
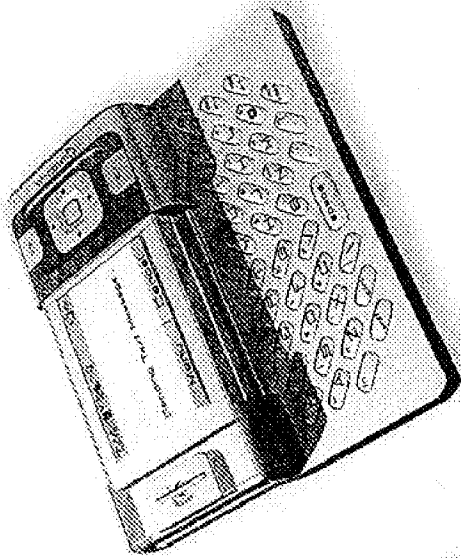
Layout 3



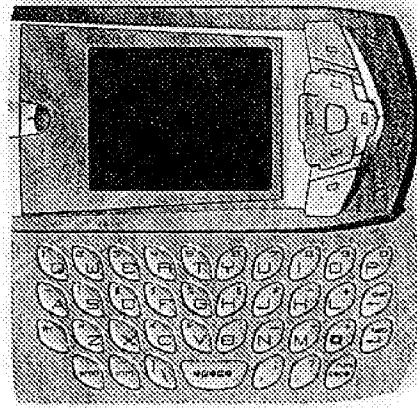
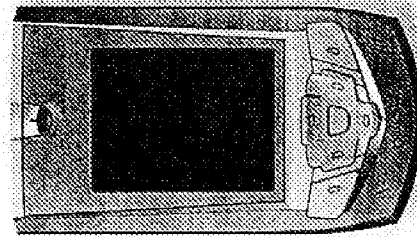
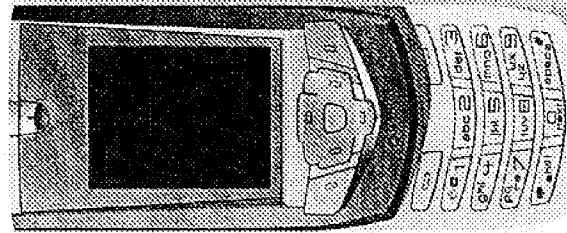
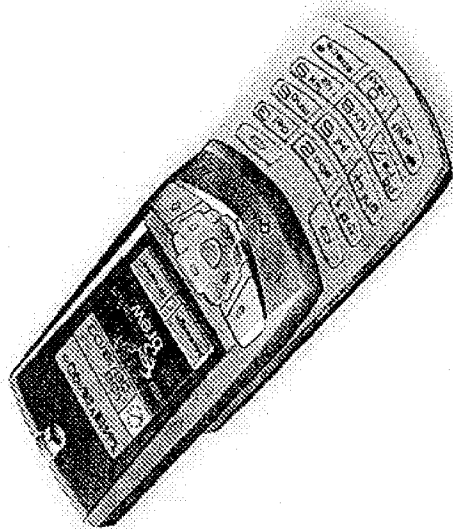
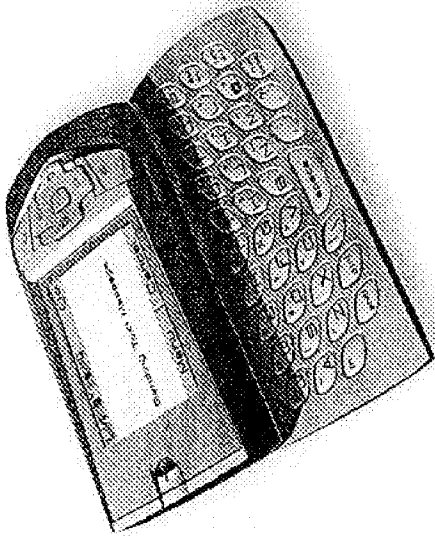
Concept 1A



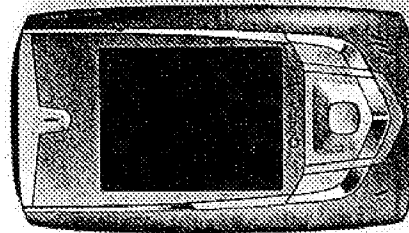
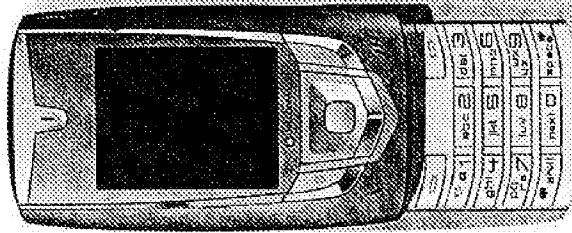
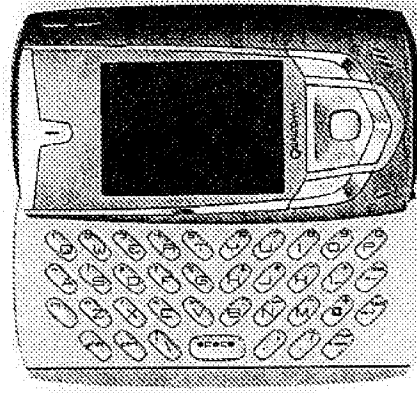
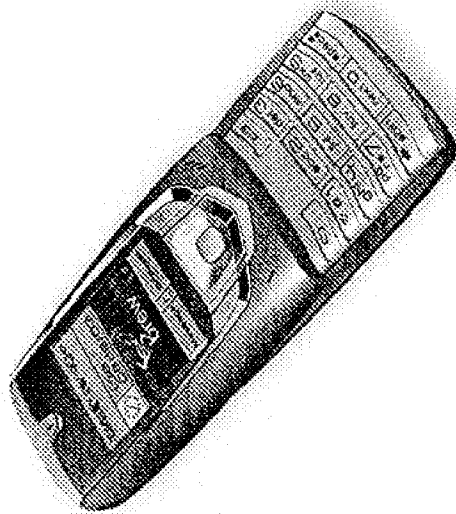
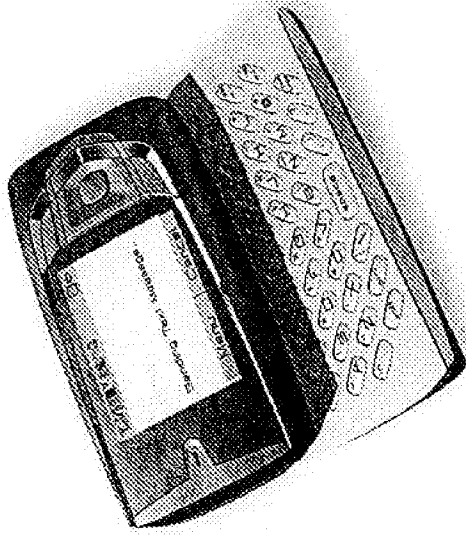
Concept 1B



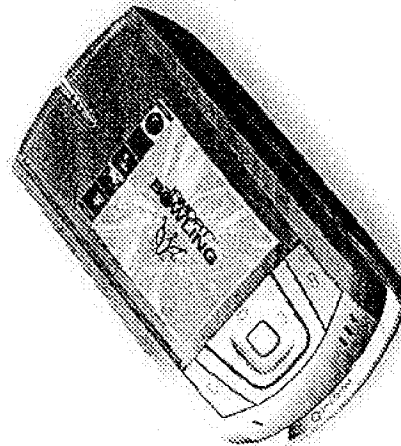
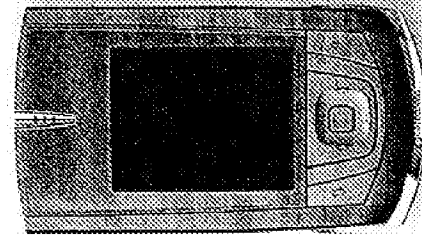
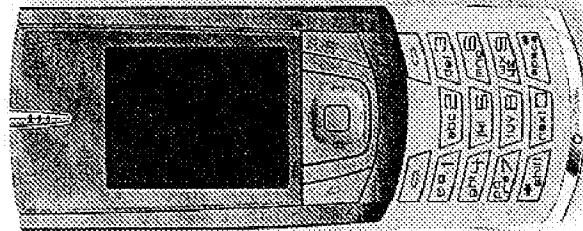
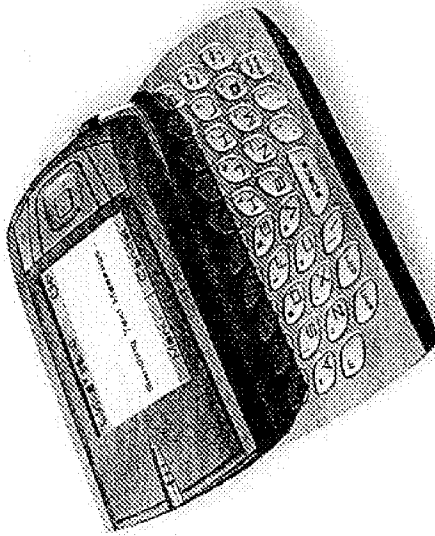
Concept 2A



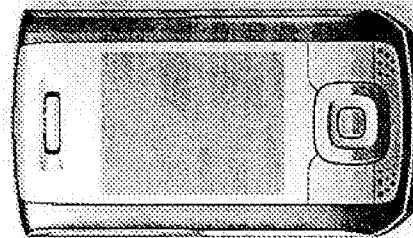
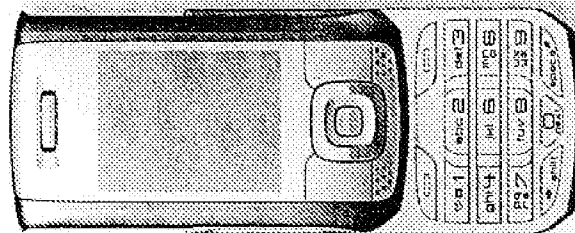
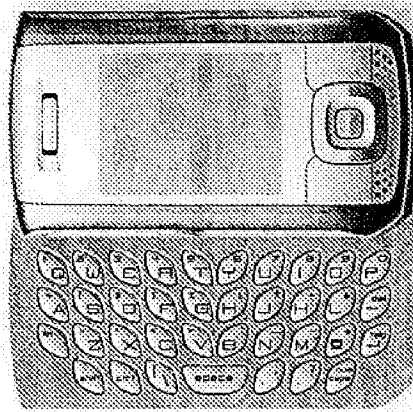
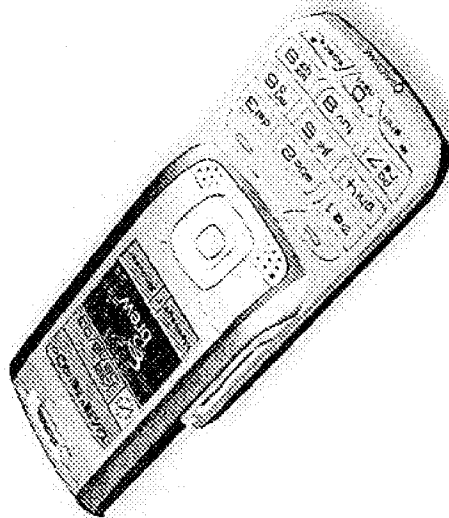
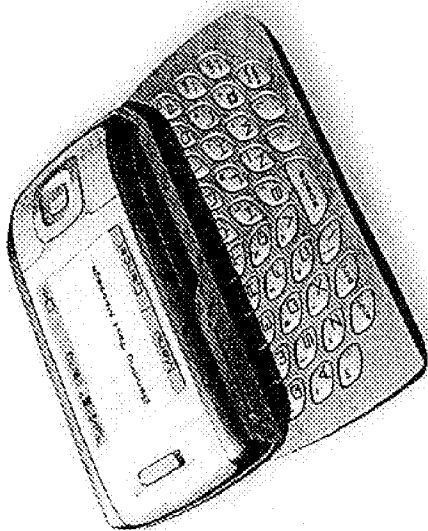
Concept 2B



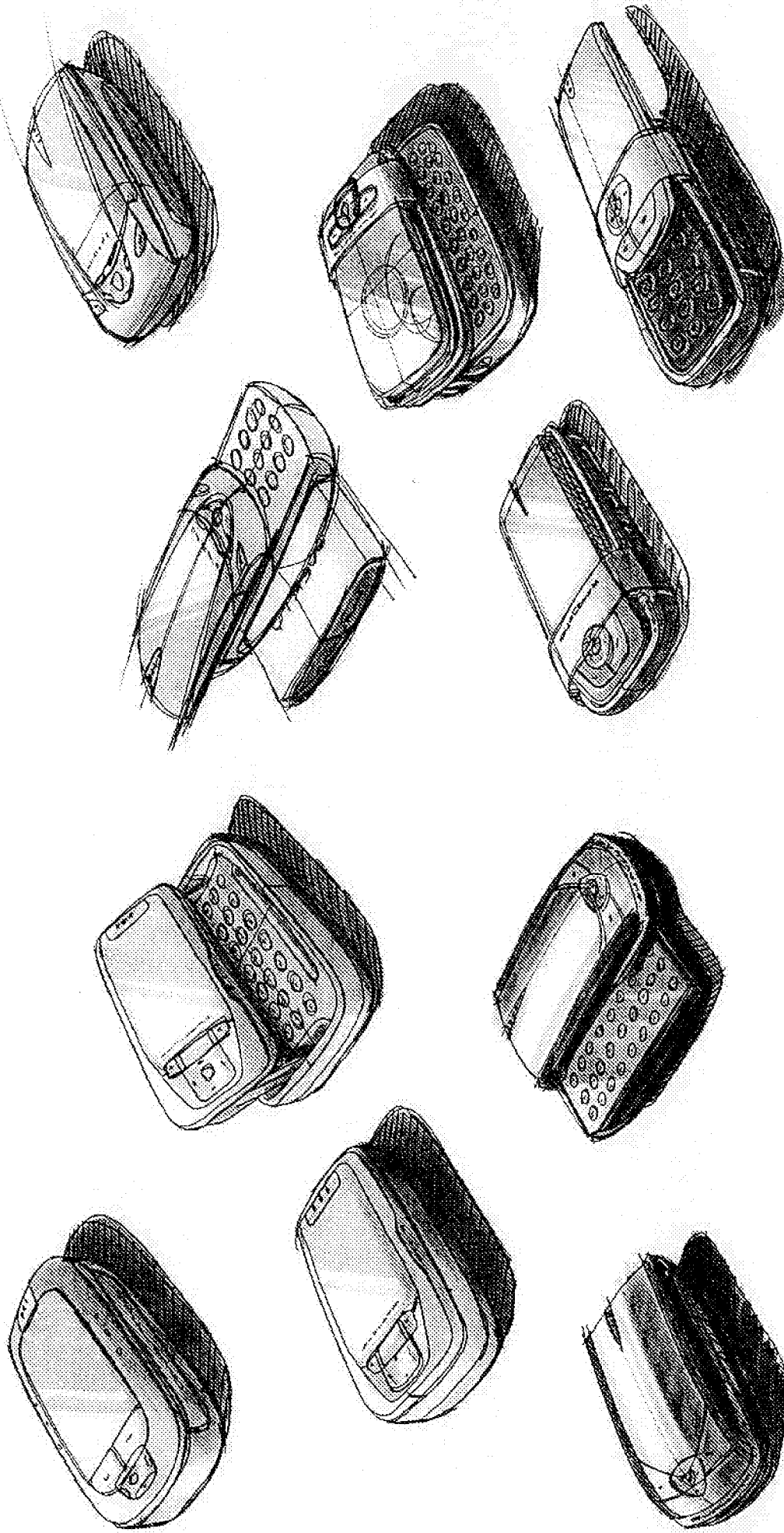
Concept 3A



Concept 3B



Concept Sketches



Concept Sketches

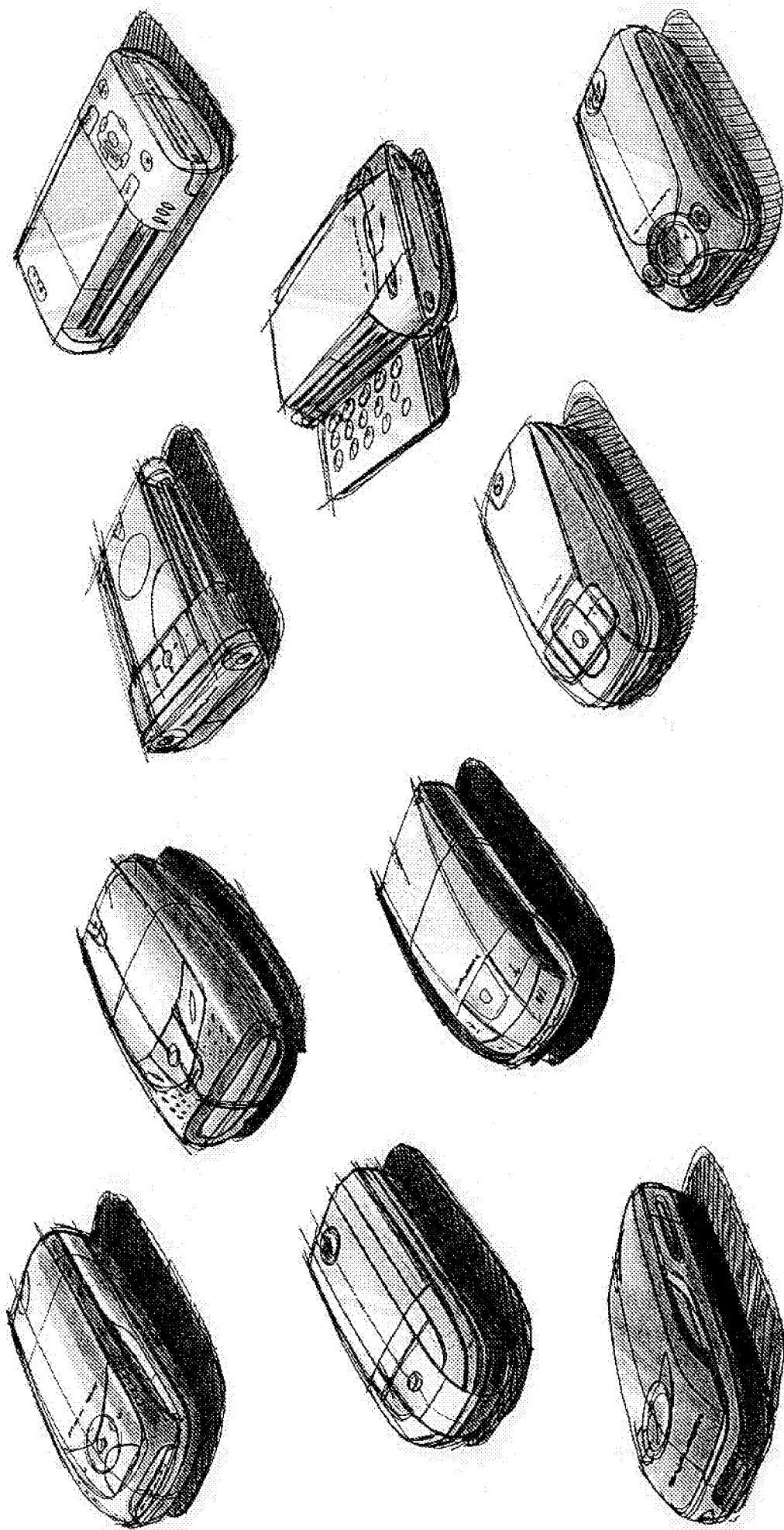


EXHIBIT C

Katbab, Abdollah

From: Ted Santos [tsantos@qualcomm.com]
Sent: Tuesday, December 12, 2006 3:18 PM
To: Katbab, Abdollah
Subject: Fwd: Patent Application Draft
Follow Up Flag: Follow up
Flag Status: Orange

Abdollah--

here you go-original attachment is missing. it was titled

PDA_10_15_2003_6_USA_1.doc;

Ted

Date: Thu, 13 Nov 2003 11:43:48 -0700
To: akatbab
From: Ted Santos <tsantos@qualcomm.com>
Subject: Fwd: Patent Application Draft

X-Sender: mhooks@e2k.qualcomm.com
X-Mailer: QUALCOMM Windows Eudora Version 5.2.0.9
Date: Mon, 10 Nov 2003 12:09:38 -0800
To: tsantos@qualcomm.com
From: Marc Hooks <mhooks@qualcomm.com>
Subject: Patent Application Draft

Good day,

For your review:

Please find attached a draft for patent application for the AC/DC phone. Please note that the application attempts to capture a point of novelty regarding the orientation of the information presented on the display in relation to the direction of keyboard sliding movement.

I'll need to fax the drawings. Is 303-247-5160 a good fax number for you?

William Marcus Hooks
Patent Agent & Strategist
Qualcomm Inc.
5775 Morehouse Dr., San Diego CA 92121
Direct) 1-858-658-5932
Mobile) 1-858-229-4108
Fax) 1-858-651-5766
mhooks@qualcomm.com

www.Qualcomm.com

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Ted Santos
Qualcomm Boulder
303-247-5482 (work)
303-819-7505 (mobile)

EXHIBIT D

1. An apparatus comprising: a display for presenting information to a user;	Exhibit A, page 4. Exhibit B, pages 4-9.
a housing connected to the display for supporting the display; and	Exhibit B, pages 4-9.
a keyboard assembly connected through a sliding connection to the housing, the keyboard assembly deployable in multiple directions,	Exhibit A, page 4. Exhibit B, pages 4-9.
wherein the information presented to the user through the display is oriented based on a direction of deployment of the keyboard assembly.	Exhibit A, page 4. Exhibit B, pages 4-9, top two illustrations.